

Rec'd PCT/PTO 24 MAR 2005

Express Mail Label: EV380180117US

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



INTERNATIONAL PATENT COOPERATION TREATY (PCT)

(43) International Publication Date:
8 April 2004 (08.04.2004)

PCT

(10) International Publication Number
WO 2004/028910 A1

(51) International Patent Classification⁷: B65D 1/02, 1/40

Murray (NZ/NZ); 90 Balmoral Road, Mt Eden, 1003 Auckland (NZ).

(21) International Application Number:

PCT/NZ2003/000220

(74) Agent: BALDWIN SHELSTON WATERS; PO Box 5999, Wellesley Street, 1000 Auckland (NZ).

(22) International Filing Date:

30 September 2003 (30.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Date:

521694 30 September 2002 (30.09.2002) NZ

(81) Designated States (*national*): AE, AG, AI, AM, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), DE (utility model), DK, DM, DZ, EC, EE (utility model), EG, FI, FR (utility model), GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NL, NO, NZ, OM, PG, PH, PL, PT (utility model), RO, RU, SC, SD, SE, SG, SK (utility model), SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YE, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): CO2 PAC LIMITED (NZ/NZ); 88-90 Balmoral Road, Mt Eden, 1001 Auckland (NZ).

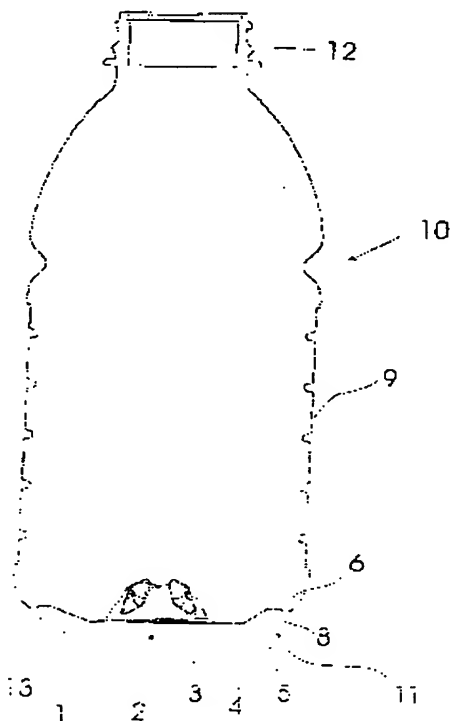
(84) Designated States (*regional*): ARIPO patent (GI, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): MELROSE, David,

[Continued on next page]

(54) Title: CONTAINER STRUCTURE FOR REMOVAL OF VACUUM PRESSURE



(57) Abstract: A hot-fill PIST container or bottle (10) for filling with a liquid at an elevated temperature has a side wall (9) extending to a lower portion including a pressure panel (11) and a base (3) in its unfolded or pre-fill position. The panel (11) is transversely oriented and has a decoupling or hinge structure (13), an initiator portion (1) and control portion (5) of a steeply angled inverting conical section between 30 and 45 degrees. The control portion enables the inversion of the panel (11) into the container (10) to compensate for vacuum or reduced pressure induced within the container as the liquid cools down. The base (3) can also have a plurality of reinforcing ribs (3).

WO 2004/028910 A1

WO 2004/028910 A1



European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— with international search report